

DEPARTMENT OF THE ARMY
U.S. Army Medical Department Center and School
2250 Stanley Road
Fort Sam Houston, Texas 78234-6100

Regulation
Number 385-20

18 May 1995

Safety
HAZARDOUS MATERIAL/WASTE MANAGEMENT PROGRAM

1. **PURPOSE.** To establish policies, procedures, and responsibilities in management of the hazardous materials (HMs) and/or hazardous waste (HW) at the U.S. Army Medical Department Center and School (AMEDDC&S).

2. **APPLICABILITY.** This regulation applies to all military and civilian personnel assigned or attached to the AMEDDC&S, including personnel located at Camp Bullis, Texas. Where HMs are used, users will adhere to all applicable federal, state, Department of Defense (DOD), and Army laws and regulations. Infectious material and waste are addressed in Memorandum No. 385-2, Bloodborne Pathogen Exposure Control Plan, dated 30 July 1993.

3. **REFERENCES.** See Appendix A

4. **DEFINITIONS.** See Appendix B

5. **ACRONYMS.** See Appendix C.

6. **GENERAL.** The AMEDDC&S employees who are exposed to HMs/HW in the course of their work will be made aware of the hazards to which they are exposed and precautions required to protect themselves in the work environment. A prerequisite to safe and effective storage and handling of HM is the accurate identification and proper classification of such materials.

7 **RESPONSIBILITIES**

a. The Commander, AMEDDC&S, has overall responsibility to ensure that HMs/HW are managed in accordance with (IAW) this regulation and all other applicable laws and regulations.

b. Environmental and Natural Resource Division (ENRD), Directorate of Public Works (DPW) responsibilities are defined in Oil and Hazardous Substances Emergency Contingency Plan and Installation Hazardous Waste Management Plan, Fort Sam Houston, 1993.

c Director of Logistics

(1) Ensures compliance with the provisions of this regulation and other pertinent laws and regulations.

(2) Implements a Command Supply Discipline Program to evaluate the management of HMs.

(3) Monitors requisitioning of HMs to ensure progress in meeting federal, state, and pollution prevention goals and requirements.

(4) Maintains an up-to-date inventory of all new and unused HMs currently stored.

(5) Ensures that all incoming and outgoing shipments of HMs contain a Material Safety Data Sheet (MSDS). In addition, MSDSs will be requested for materials received without an MSDS.

(6) Establishes and maintains a current MSDS master file for all HMs ordered or locally purchased by AMEDDC&S activities.

(7) Provides transportation for HMs/HW to the ENRD, DPW holding area when requested by the AMEDDC&S generating activities.

(8) Ensures that HMs are stored safely before issue, as required by health, safety, and fire standards.

d. AMEDDC&S Safety Manager

(1) Ensures compliance with the provisions of this regulation, and other pertinent laws and regulations.

(2) Provides hazard communication training to personnel as stated in AMEDDC&S Reg 11-2, dated 23 October 1993 (in revision).

e. AMEDDC&S Hazardous Materials and Waste Manager (HM&WM).

(1) Develops and implements procedures for the AMEDDC&S Hazardous Material and Waste Management Program.

(2) Acts as the AMEDDC&S liaison with ENRD regarding management of HMs/HW.

(3) Attends the quarterly Environmental Compliance Board Meeting conducted by the ENRD.

(4) Reviews standing operating procedures (SOPs) for all AMEDDC&S activities using HMs and generating waste.

(5) Conducts annual inspections of all departments where HMs are stored and waste generated.

(6) Reviews specifications for construction or renovation projects to determine compliance with environmental laws and regulations.

(7) Advises AMEDDC&S HW generators on means to reduce the amount of waste.

(8) Provides technical guidance on handling, labeling, storing, identifying, and disposing of HMs/HW.

(9) Maintains copies of all HW manifests, generated by the AMEDDC&S activities.

f. Department Chiefs or Supervisors

(1) Ensure compliance with the provisions of this regulation, and other pertinent laws and regulations.

(2) Designate, in writing, a Hazardous Material and Waste Handler (HM&WH) and alternate to manage the HMs/HW in the workareas. Forward a copy of the appointment to the HM&WM.

(3) Ensure that employees are provided and have received adequate training in the use of personal protective equipment (PPE).

(4) Review procedures for disposal of HM/HW, ensuring compliance with safety, health, and environmental laws and regulations.

(5) Establish procedures to decontaminate equipment which is being turned in to Defense Reutilization and Marketing Office (DRMO). For assistance contact the HM&WM for detailed instructions.

g. Department Hazardous Material and Waste Handler (HM&WH) and alternate.

(1) Manage HM/HW IAW the provisions of this regulation, and other pertinent laws and regulations, to include department SOP.

(2) Conduct weekly inspections of all HW accumulation storage areas. If not in compliance, initiate corrective action for leaks, spills, and improper storage and document findings (see Appendix M).

(3) Coordinate with HM&WM for a preinspection of HMs/HW being turned in.

(4) Advise management and/or the employees on which PPE to use when handling HMs/HW.

(5) Requisition a minimal amount of HMs necessary to accomplish the assigned task.

(6) Ensure that all HMs/HW are stored in Department of Transportation (DOT) approved containers.

(7) Ensure that collection areas of HW are equipped to handle leaks or spills--absorbent materials and recovery drums will be on hand.

(8) Contact the HM&WM for further guidance, when analysis is required for containers of unknown contents.

(9) Maintain a current HM inventory and MSDSs for each HM on hand.

(10) Maintain a current HW inventory including the identification of the types and quantities of HW generated.

(11) Ensure that all MSDSs are current and up-to-date. Material safety data sheets must be maintained in locations readily accessible in the workareas for all employees.

(12) Ensure proper collection, segregation, storage, and disposal of HMs/HW in accordance with Resource Conservation and Recovery Act (RCRA).

(13) Establish procedures for requisitioning of nonhazardous or less hazardous materials.

8. **TRAINING.** Personnel handling or managing HMs/HW are required to complete a program of classroom training that teaches them to perform their job and to comply with federal, state, and local laws and regulations.

a. Hazard Communication procedures will be followed as stated in AMEDDC&S Reg 11-2, dated 23 October 1993 (in revision).

b. Notify the AMEDDC&S HM&WM if there are any changes in personnel who handle or transport HM/HW.

c. The HM&WM will coordinate with ENRD to determine specific training requirements. Training must include compliance, handling, storage, disposal, transporting, and emergency procedures.

d. As required by RCRA, employee training records shall contain the job title, job description, written description of the amount and type of initial training required for the employee, and continued training expected of the employee.

Training records will be maintained by the departments for a minimum of three years. Records shall be available for inspection at all times.

9. **HAZARDOUS MATERIALS.** All AMEDDC&S activities' SOPs will include a plan to avoid or eliminate the unnecessary acquisition of products containing extremely hazardous substances (HSs) or toxic chemicals. Minimization of HMs is an integral part in reducing HW. Hazardous materials include, but are not limited to adhesives, batteries, cleaning compounds, copier toner, lubricants, paints, photographic chemicals, solvents, and thinners.

a. Effective HM minimization methods to reduce HW are:

(1) Material substitution. Hazardous material control can be accomplished by requiring the use of nonhazardous, nontoxic, or biodegradable types of products in performing assigned tasks.

(2) Process change. Use alternate methods which produce less or no HW to get the job done.

(3) Review requisitions. Requests for materials will be evaluated for hazardous characteristics by the HM&WH and safety manager, using the product's MSDS. Ensure that the HM can be safely stored and used before product is requisitioned. If further assistance is required in determining if the product is hazardous, contact the Directorate of Logistics or the AMEDDC&S Safety Office.

(4) Shelf-life management. Effective management of shelf-life items ensure that the oldest items are issued first (first in, first out).

b. When HMs are received, ensure current MSDSs (see Appendix I) are on file in the Storage and Issue Branch. If an MSDS is needed, then the Logistics Division will contact the vendor to obtain the MSDS. Storage and Issue Branch will not issue the HM until the presence of an MSDS is verified.

c. Department chiefs or supervisors will ensure that all MSDSs are current and accessible in the workareas for all employees. This may be accomplished through the duties of the department Safety Officer/NCO, Industrial Hygiene, Brooke Army Medical Center (BAMC), or HM&WM.

d. Hazardous material will be transported, handled, and stored according to directives on specific MSDSs, or in accordance with any additional safety standards directed by Fire Department; AMEDDC&S Safety; or Industrial Hygiene, BAMC.

(1) Hazardous materials must be properly labeled to comply with DOT HMs regulations. The DOT labels will identify the classification of the HM in containers (explosive, flammable, corrosive, oxidizer, etc.). The HM&WH must ensure labels remain on containers until container is sufficiently cleaned of residue and purged of vapors to remove any potential hazards.

(2) Hazardous materials will be compatibly stored (acids will not be stored with bases, and oxidizers will not be stored with organics) (see Appendix D).

(3) Hazardous materials and/or hazardous waste storage areas must have at least three feet aisle space to allow inspection of storage, access by personnel, and emergency response equipment.

e. The department chiefs/supervisors will ensure that an annual HM inventory is conducted by the month of November and forwarded to the Fort Sam Houston or Camp Bullis Fire Department ENRD, and the AMEDDC&S HM&WM, Safety Office. Ensure that a copy of the MSDS for each chemical is attached to the inventory sheet(s). Further instructions are available in AMEDDC&S Reg 11-2 (in revision).

f. When transferring HMs to another activity, a DA Form 3161 (Request for Issue and Turn-in) must be prepared by the losing activity. Prepare two copies of the DA Form 3161. The original copy is maintained by the losing activity and the second copy is maintained by the gaining activity. The losing activity must maintain the DA Form 3161 for at least three years.

10. IDENTIFICATION OF HAZARDOUS WASTE. Excess materials, substances, or items which meet the following conditions are HW when they are discarded or intended to be discarded and are subject to the RCRA 40 Code of Federal Regulations (CFR) 260.20, Subpart C:

a. Wastes that are not specially listed may be considered hazardous because they have one or more of the following characteristics:

(1) Ignitability - liquid having flashpoint of less than 140 degrees F (60 degrees C) or that is capable of causing fire through friction, absorption of moisture, or spontaneous chemical changes. Examples are paint wastes, certain degreasers, or other solvents.

(2) Corrosivity - an aqueous waste that has a pH of 2 or less or pH of 12.5 or more, or because the waste can corrode steel at a rate of 1/4 inch per year. Examples are waste rust removers, waste acid, or waste battery acid.

(3) Reactivity - substances which can readily undergo violent chemical changes, react violently, form a potentially explosive mixture with water, or explode at normal room temperature and pressure. Examples are cyanide plating wastes, waste bleaches, aerosol cans, and other waste oxidizers.

(4) Toxicity - wastes that contain any of the contaminants listed by the EPA in 40 CFR 261.24 in excess of the maximum concentration allowed. A list of the regulated toxic constituents is provided at Appendix E.

(5) "Listed wastes" are specific chemicals or specific types of waste listed in 40 CFR 261, Subpart D. These lists are extensive and include wastes from nonspecific sources, specific sources, discarded commercial chemical products, off-specification materials, container residues, and spill residues.

b. An additional source of information on whether or not a product has characteristics that would make it hazardous waste under existing federal law is the MSDS provided by the manufacturer for each product.

c. If assistance is still required in determining the presence and extent of HW in a product, contact the AMEDDC&S HM&WM.

d. All AMEDDC&S activities that generate HW will comply with all other requirements of the Installation Hazardous Waste Management Plan.

e. The department chiefs/supervisors will maintain a list of HW generated in their work areas. This list will be available to all employees at any time for review. The SOP shall include a list of HW generated.

11. HAZARDOUS WASTE STORAGE.

a. Container(s) with HW will be closed during storage, except when it is necessary to add or remove waste.

b. For safe storage of HW, the package or repackaging shall be performed in suitable containers:

Free of leaks.

Clean and without corrosion on the exterior.

Securely taped and sealed

Serviceable plugs, lids, caps, or collars tightly in place.

(5) Stored in such a manner as to avoid ruptures or releases.

(6) No rust or damage (such as large dents on seams) which may result in leaks.

(7) When possible, store HW in the original container or a container of the same material.

(8) All old labels that do not apply to the HW in the container must be removed or obliterated.

c. Containers holding small quantities of ignitable or reactive waste in laboratories operating under the requirements of the Chemical Hygiene Plan (Academy of Health Sciences Memo 385-2) must be stored in flammable cabinets, chemical fume hoods, or acid cabinets as appropriate for the type of materials being stored. All other containers holding ignitable or reactive waste must be located at least 50 feet from any structure.

d. The HM&WH will inspect HW containers weekly for labels, leaks, and deterioration. The HM&WH will maintain the weekly inspection log for a minimum of at least three years (see Appendix M).

e. Storage of HW will not exceed 55 gallons of HW (this is total HW, not each type HW) or one quart of acutely HW. When the accumulated waste volume exceeds 55 gallons or one quart, the generator has three days to ensure waste is turned in to the ENRD, DPW holding area.

12. DISPOSAL PROCEDURES. The disposal of wastes is highly regulated, and mismanagement of any waste carries great liabilities. Hazardous wastes include those generated in laboratories as well as in the motor pool and training sites. Procedures established for collecting and disposing of hazardous chemicals, waste, residues, and sludge apply to all users of HMs. All AMEDDC&S generators of HW must identify the HM/HW to the AMEDDC&S HM&WM.

a Hazardous materials

(1) There are three categories of HMs that must be turned in to ENRD at Fort Sam Houston:

(a) Expired shelf-life. Hazardous material where the prescribed shelf-life or the shelf-life extension date has been exceeded.

(b) Unserviceable condition. Hazardous material which fails laboratory testing; is stored in badly damaged/leaking

containers; or which has dried, hardened, or otherwise deteriorated in the container.

(c) Excess materials. Hazardous material no longer required due to changes in workloads, procedures, specification, or incorrect materials.

(2) Turn-in criteria for containers:

(a) Must be in original containers with nomenclature clearly indicated by manufacturer's labels or other container markings.

(b) Containers must be in good condition and safe to handle. Leaking, badly damaged, or deteriorated containers must be overpacked.

(c) Containers must be unopened and unused, with applicable factory seals intact in order to be processed as an HM.

Documentation required to turn in HMs:

(a) Prepare a DD Form 1348-1 (DOD Single Line Item Release/Receipt Document) and attach a copy of the MSDS for each HM that is being turned in, for missing MSDSs contact the HM&WM. For detailed instruction in preparing the documentation, see Appendix G.

(b) Before the HM is turned in contact the HM&WM for a preinspection of the HM and documentation to ensure compliance with safety, health, and environmental laws and regulations.

(c) Ensure a copy of the turn-in document is sent to the AMEDDC&S HM&WM. Maintain turn-in document(s) in file for at least three years.

b. Hazardous waste

Requirements for storage of HW:

(a) Empty waste containers, DOT labels, and markings must be obtained from the ENRD prior to accumulating any waste

(b) Turn in drums or containers no later than the date specified on the Hazardous Waste Accumulation Label.

(c) Incompatible waste (see Appendix D) will be separated from each other by a dike, berm, or wall while in storage.

(d) Adequate security will be maintained at the HW generation and accumulation site(s).

(e) Before discharging any chemicals or their by products to the sanitary sewer, the ENRD will be consulted and informed for approval of the anticipated operation. Maintain a current list of chemicals that are discharged into the sanitary sewer. Ensure a copy of the list is forwarded to the HM&WM and the ENRD.

(f) Do not dispose of volatile chemical waste by allowing it to evaporate in a fume hood.

(g) Drums shall be filled, allowing six inches free space between the product's level and top of the drum to allow for expansion (see Appendix J).

(h) When filled, bung hole plugs shall be installed, using thread tape and tightened enough to prevent leaking.

(2) Documentation required to turn in HW:

(a) Once the generating activity starts collecting HW, the "Hazardous Waste" label must be placed on the container. A sample "Hazardous Waste" label with instructions is shown on Appendix H.

(b) A second label to be placed on the collecting container is the DOT label that displays the hazardous characteristics of the waste (see Appendix K).

(c) When required, DOT placards will be placed on vehicles transporting HW (see Appendix L). Ensure personnel are properly trained in DOT procedures, before transporting HW on public streets.

(d) When container is full, prepare DD Form 1348-1 (Request for Issue and Turn-in) (see Appendix G) for each product being turned in. The HW container will not be stored for more than three days after the container is full. Retain turn-in document copy for at least three years. Forward a copy of the DD Form 1348-1 to the HM&WM.

(e) Attach a copy of the MSDS (see Appendix I) to the DD Form 1348-1 for each product that is being turned in. For missing MSDSs contact the HM&WM to obtain a copy of the MSDS.

(f) Before HM/HW is turned in to the ENRD contact the HM&WM for a preinspection of the material to ensure compliance with safety, health, and environmental laws and regulations.

(g) Once all discrepancies are resolved, the generator should contact the HM&WM to set up an appointment to turn in the HW.

c. The HM&WH will report monthly inventory of waste products and maintain a record of generation utilizing FSH Form 700 (see APPENDIX F), which will be submitted to the AMEDDC&S HM&WM, ATTN: MCCS-GSF, on the first week of each month

13. SPECIAL REQUIREMENTS

a. Organizations that generate empty containers which previously contained HMs will coordinate with the HM&WM or the ENRD for proper disposal instructions of empty containers. Empty containers for collection of HW can be obtained from the ENRD, DPW, 14930/14842.

b. Before a service contract for disposal of HMs/HW is submitted to Contracting Division, the HM&WM and the ENRD must review and approve the purchase request. It is the responsibility of the contractor(s) to dispose of the HM/HW under the terms of the service contract. Contractors must comply with health, safety, and environmental laws and regulations.

c. If any material, substance or item is unidentified, unmarked or if the department is not sure of the substance, contact the HM&WM. The HM&WM will coordinate with the ENRD to have the substance analyzed to determine whether it contains HW

d. Equipment that is contaminated with HS must be decontaminated before equipment is turned in to property management for disposal. Identify on the DD Form 2407 (Maintenance Request) "Remarks Block" that equipment was decontaminated.

e. Storage cabinets and sheds for HMs/HW will identify the following information on the doorway:

(1) Where MSDSs are filed

(2) Individual name and phone number to contact in case of an HM/HW spill/release.

f Expired pharmaceuticals

(1) Thirty days prior to expiration, pharmaceuticals located in the AMEDDC&S activities will be removed from circulation and returned to the manufacturer if authorized; or will be turned in IAW AR 40-61. This only applies to those unopened/unused products.

(2) All pharmaceuticals, used or unused, which have expired, will be determined if they are a HW before disposal. Consult Military Item Disposal Instruction (MIDI) or Military Environmental Information Source (MEIS) for destruction code of the pharmaceutical. The MIDI and MEIS will also indicate which pharmaceuticals are HW as an alternative to Title 40 CFR Part 261.

(3) If further guidance is required for turn in of pharmaceuticals contact the HM&WM.

g. Small quantities of used formalin (10% or less) may be poured down the sink drain and then flushed with cold tap water at a rate no greater than one quart per hour. Unused solutions or higher concentrations of formaldehyde are considered hazardous wastes and require collection and disposal. Concentrated formaldehyde may not be diluted simply to reduce the concentration below 10% for disposal. According to the San Antonio water permit the proper disposal of formalin may change.

h. Facilities Division will forward for review specifications for construction or renovation projects to the HM&WM to determine compliance with all applicable laws and regulations.

TRANSPORTATION REQUIREMENTS.

a. Transporting HM/HW within the boundaries of Fort Sam Houston:

(1) The MSDS (see Appendix G) will accompany the HM/HW is being transported.

(2) When applicable, government vehicles transporting HM/HW will have the appropriate placards affixed to both sides, rear, and front.

(3) The transport vehicle will contain sufficient absorbent material in order to contain any spills in the event of an accident.

(4) The use of privately owned vehicles (POVs) for transport of HM/HW is prohibited, only General Services Administration (GSA) government vehicles will be used.

(5) If transportation is required for transporting the HM/HW to the ENRD holding area, contact the Storage and Issue Branch. Personal protective equipment will be provided by the activity requesting transportation of the HM/HW.

(6) In case of a mishap or accidental spill of HM/HW during transport, the Fire Department and the ENRD will be notified immediately.

b Transporting HM/HW within the boundaries of Camp Bullis:

(1) The MSDS (see Appendix G) will accompany the HM/HW that is being transported.

(2) When applicable, GSA vehicles transporting HM/HW will have the appropriate placards affixed to both sides, rear and front.

(3) The transport vehicle will contain sufficient absorbent material in order to contain any spills in the event of an accident.

(4) Ensure proper PPE is packed and available in the vehicle when transporting the HM/HW.

(5) The use of POVs for transport of HM/HW is prohibited, only GSA government vehicles will be used.

(6) In case of a mishap or accidental spill of HM/HW during transport, the Camp Bullis Fire Department and the ENRD will be notified immediately.

15 SPILLS PROCEDURES AND RESPONSE.

a. The AMEDDC&S activities that use HMs or generate waste will maintain on file a copy of the Installation Oil and Hazardous Substances Emergency Contingency Plan which will be provided by the ENRD, DPW.

b. Supervisors will prepare a spill control and clean up plan for their specific working areas which use, handle, or store chemicals. Submit plan to the AMEDDC&S Safety Office for review and approval. Post the plan in a highly visible location in the work area where hazardous materials are used or stored.

c. Hazardous substances spills or releases of any type, even if minor and successfully cleaned up, must be reported telephonically to the HM&WH and the AMEDDC&S Safety Office.

d. Hazardous substances spills or releases will be contained as much as possible to prevent the waste from spreading or entering sanitary sewers or creeks. Spill containment materials for absorbing and neutralizing hazardous chemicals (HCs) should be readily accessible to the employees, to include PPE. Ensure employees using HCs are properly trained by the department supervisor in containing spills.

e. Individual(s) discovering the spill is/are responsible for providing initial defensive actions without undue risk of personal injury. The following actions will be implemented as necessary upon discovery of a spill. The order of the actions will depend upon existing conditions.

- (1) Initiate evacuation, if necessary.
- (2) Contact department chief/supervisor.
- (3) Notify the following departments:

<u>Departments</u>	<u>Phone</u>
Fire Department	911
ENRD, DPW	221-4930/4842
HM&WM, Safety Office	221-9885

(4) When notifying the Fire Department of the spill occurrence, the following information should be provided, if known, or if information can reasonably be determined.

- (a) Name of individual reporting spill
- (b) Location of spill.
- (c) Number of injured personnel and nature of injuries
- (d) Hazardous substance spilled.
- (e) Quantity spilled (estimate).
- (f) Time spill occurred.
- (g) Extent which spill has traveled.
- (h) Any additional information (i.e., other potential hazards)

(5) Stop source of spill when possible without undue risk of personal injury, to include use of on-site spill containment equipment, materials and PPE.

(6) Do not walk into or touch spilled materials. Avoid inhalation of fumes, smoke and vapors, even if no hazardous materials are known to be involved. Do not assume that gases or vapors are harmless because of lack of a smell. Odorless gas vapors may be harmful.

(7) Identify spill scene "Off Limits" to unauthorized personnel.

(8) If you have flammable liquid spill warn everyone to extinguish flames and turn off spark-producing equipment. If possible, close doors and windows and vacate the room.

(9) Report to on-scene Fire Department responder upon arrival.

(10) Do not return to the work area until instructed to do so by the Industrial Hygiene, BAMC or ENRD.

f. If the spill occurs after duty hours, initiate the following procedures:

(1) Initiate evacuation, if necessary

(2) Stop source of spill when possible without undue risk of personal injury, to include use of on-site spill containment equipment, materials, and PPE.

(3) Notify the Fire Department. Provide information listed in paragraph 15e(4).

(4) Do not return to the area until instructed to do so by the Industrial Hygiene, BAMC or ENRD.

16 STANDING OPERATING PROCEDURES (SOP) REQUIREMENTS.

Department supervisor must establish SOP for department(s) that use HMs and generate waste. Review SOP annually to ensure compliance with all applicable laws and regulations. The SOP must include as a minimum:

a. List of all HMs in the work areas and indicate the location of the MSDSs.

b. List of all HW generated in the workareas.

c. Requisitioning procedures for HMs

d. Storage procedures for HMs/HW

e. Proper handling procedures for HMs/HW

f. Personal protective equipment requirements.

g. Proper disposal procedures HMs/HW (site specific information).

h. Inspection and control procedures

i. Marking, labeling, and placarding for HMs/HW

- j. Emergency response procedures for specific workareas.
- k. Training and recordkeeping requirements
- l Safety procedures
- m. Signature sheet for all employees

APPENDIX A

References

1. 29 Code of Federal Regulations, Hazard Communication, Part 1910.1200.
2. 29 Code of Federal Regulations, Occupational Exposure to Hazardous Chemicals in Laboratories, Part 1910.1450.
3. 40 Code of Federal Regulations, Protection of Environment, Parts 260 to 266.
4. 49 Code of Federal Regulations, Transportation, Parts 107 to 173.
5. DOD 6050.5LR, DOD Hazardous Materials Information System (HMIS), Defense Logistics Agency.
6. Technical Manual 38-410, Storage and Handling of Hazardous Material.
7. Technical Guide No. 126, Waste Disposal Instructions, U.S. Army Environmental Hygiene Agency.
8. Military Item Disposal Instructions (MIDI) CD-ROM.
9. Installation Spill Contingency Plan, Department of the Army Headquarters, Fort Sam Houston, Texas.
10. Installation Hazardous Waste Management Plan, U.S. Army Headquarters, Texas.
11. AR 40-5, Preventive Medicine
12. AR 40-61, Medical Logistical Policies and Procedures
13. AR 200-1, Environmental Protection and Enhancement.
14. AR 385-10, The Army Safety Program.
15. Unit Supply Update, Update 2-14

APPENDIX B

Definitions

Accumulation. The temporary holding of hazardous waste prior to treatment, storage, or disposal.

CFR. The Code of Federal Regulations, a document containing all finalized regulations.

Compliance. The act of conforming with a demand or proposal, as in complying with regulatory or permit requirements.

Container. Any portable device in which material is stored transported, treated, disposed of, or otherwise handled.

Corrosive Waste. Hazardous waste with a pH less than or equal to 2.0 or greater than or equal to 12.5. These are usually acids and bases. The pH of a material may be found on the label or material safety data sheets (MSDS). Note the pH may change after a material has been used. See 40 CFR, Part 261.22 for a complete definition.

Environmental Protection Agency (EPA) Waste Code. An EPA hazardous waste number that is listed in 40 CFR 261 Subpart C (characteristic waste) or Subpart D (listed waste).

Hazardous Chemical. Chemical that is a physical hazard (combustible, explosive, flammable, unstable, water reactive, etc.) or a health hazard (carcinogen, toxic agent, irritant, corrosive, sensitizer, etc.) or both. The Occupational Safety and Health Administration regulates hazardous chemicals.

Hazardous Material. Any materials, including substances and wastes, that may pose an unreasonable risk to health, safety, property, or the environment when they exist in specific quantities and forms. Chemicals that have been determined by the Secretary of Transportation to present risks to safety, health, and property during transportation.

Hazardous Substance. Chemicals which are harmful to aquatic or the environment and are regulated if spilled or otherwise released to the environment.

Hazardous Waste. Waste which, if improperly managed, can create risk to the safety or health of people or to the environment. Environmental Protection Agency considers hazardous waste a subset of both solid waste and hazardous materials. Technically, those wastes that are regulated under RCRA 40 CFR 261 either because they are "listed waste" or because they are ignitable, corrosive, reactive, or toxic.

Ignitability Waste. Liquids with a flash point less than 140 degrees Fahrenheit (60 degrees Centigrade) - water based solutions containing less than 24 percent alcohol are specifically exempted (the flash point is the temperature at which vapor is given off at a sufficient level to form an ignitable mixture with air near the surface of the liquid). Non-liquids capable, under normal conditions, of causing fire through friction, absorption of moisture, or spontaneous chemical changes. See 40 CFR 261.21 for a complete definition.

Label. A sticker of specified design that goes on package or container and pictorially indicates the hazard class of the contents.

Resource Conservation and Recovery Act. Sets standards and procedures for solid and hazardous waste management 40 CFR.

Reactive Waste. Hazardous waste that reacts with water, is unstable and readily undergoes violent change without detonating See 40 CFR 261.23 for complete definition.

Spill. An accidental or unintentional leaking, pumping, pouring, emitting, emptying, or dumping of waste or materials into or onto any surface, land, water, or air.

Toxic Waste. Capable of producing injury, illness, or damage to humans, domestic livestock, wildlife, or other organisms through ingestion, inhalation, or absorption through any body surface. Also, may pose a substantial hazard to the environment. See 40 CFR 261.33 for a complete definition.

APPENDIX C

Acronyms

ACRONYM

AMEDDC&S	U.S. Army Medical Department Center and School
BAMC	Brooke Army Medical Center
CFR	Code of Federal Regulations
DOT	Department of Transportation
DPW	Directorate of Public Works
ENRD	Environmental and Natural Resource Division
EPA	Environmental Protection Agency
GSA	General Services Administration
HC	Hazardous Chemical
HM/HW	Hazardous Material or Hazardous Waste
HM&WH	Hazardous Material and Waste Handler
HM&WM	Hazardous Material and Waste Manager
IAW	In Accordance With
HS	Hazardous Substances
MEIS	Military Environmental Information Source
MIDI	Military Item Disposal Instruction
MSDS	Material Safety Data Sheet
POV	Privately Own Vehicles
PPE	Personal Protective Equipment
RCRA	Resource Conservation and Recovery Act
SOP	Standing Operating Procedures

APPENDIX D
INCOMPATIBLE WASTES

The mixing of a Group A waste with a Group B waste may have the potential consequences as noted.

Group A

Acetylene
Alkaline caustic fluids
Alkaline cleaner
Alkaline corrosive liquid
Caustic wastewater
Lime sludge/corrosive alkalies
Spent caustic

Group B

Acid sludge
Acid and water
Battery Acid
Chemical Cleaner
Electrolyte, acid
Liquid cleaning compound
Spent acid
Spent mixed acid
Spent sulfuric acid

Potential consequences include heat generation and/or violent reaction.

The mixing of a Group C waste with a Group D waste may have the potential consequences as noted.

Group C

Asbestos waste/toxic waste
Unrinsed pesticide containers
Waste pesticides

Group D

Cleaning Solvents
Obsolete explosives
Petroleum waste
Solvents
Waste oil
Flammable wastes
Explosive wastes

Potential consequences include release of toxic substances in case of fire or explosion.

The mixing of a Group E waste with a Group F waste may have potential consequences as noted.

Group E

Aluminum
Calcium
Lithium
Magnesium
Potassium
Sodium
Zinc powder
Other reactive metals or metal hydrides

Group F

Any waste in Group B
Any waste in Group D

Potential consequences include fire or explosion or the generation of flammable or hydrogen gas.

The mixing of a Group G waste with a Group H waste may have potential consequences as noted.

Group G

Alcohol
Water

Group H

Any concentrated Group A
Any concentrated Group B
Calcium
Lithium
Metal Hydrides
Potassium
Sodium
water reactive wastes

Potential consequences include fire, explosion, or heat generation; generation of flammable or toxic gases.

The mixing of a Group I waste with a Group J waste may have the potential consequences as noted.

Group I

Alcohols
Aldehydes
Halogenated Hydrocarbons
Nitrated hydrocarbons and other reactive organic compounds
Solvents
Unsaturated hydrocarbons

Group J

Concentrated Group A
Concentrated Group B
Any Group E waste

Potential consequences include fire, explosion/violent reaction

The mixing of a Group K waste with a Group L waste may have the potential consequences as noted.

Group K

Chlorates/strong oxidizers
Chlorine
Chromic acid
Hypochlorites
Nitrates
Nitric acid, fuming
Perchlorates
Permanaganates
Peroxides

Group L

Acetic acid/other organic concentrated mineral acids
Any Group D waste
Any Group E waste
Any Group I waste
Flammable/combustible wastes

Potential consequences include fire, explosion/violent reaction

APPENDIX E

Table 1-Maximum Concentration of Contaminants for Toxicity Characteristic (40 CFR 261.24)

EPA (Note 1) HW No.	Contaminant	Maximum Concentration (mg/L)
D004	Arsenic	5.0
D005	Barium	100.0
D006	Cadmium	1.0
D007	Chromium	5.0
D008	Lead	5.0
D009	Mercury	0.2
D010	Selenium	1.0
D011	Silver	5.0
D012	Endrin	0.02
D013	Lindane	0.4
D014	Methoxychlor	10.0
D015	Toxaphene	0.5
D016	2,4-D (2,4-Dichlorophenoxyacetic Acid)	200.0
D017	2,4,5-TP (Silvex)	1.0
D018	Benzene	0.5
D019	Carbon tetrachloride	0.5
D020	Chlordane	0.03
D021	Chlorobenzene	100.0
D022	Chloroform	6.0
D023	o-Cresol	200.0 (Note 3)
D024	m-Cresol	200.0 (Note 3)
D025	p-Cresol	200.0 (Note 3)
D026	Cresol	200.0 (Note 3)
D027	1,4-Dichlorobenzene	7.5
D028	1,2-Dichloroethane	0.5
D029	1,1-Dichloroethylene	0.7
D030	2,4-Dinitrotoluene	0.13 (Note 2)
D031	Heptachlor (and its epoxide)	0.008
D032	Hexachlorobenzene	0.13 (Note 2)
D033	Hexachlorobutadiene	0.5
D034	Hexachloroethane	3.0
D035	Methyl ethyl ketone	200.0
D036	Nitrobenzene	2.0
D037	Pentachlorophenol	100.0
D038	Pyridine	5.0 (Note 2)
D039	Tetrachloroethylene	0.7
D040	Trichloroethylene	0.5
D041	2,4,5-Trichlorophenol	400.0

D042	2,4,6-Trichlorophenol	2.0
D043	Vinyl chloride	0.2

Note:

(1) Hazardous waste number.

(2) Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

(3) If o-, m-, and p-Cresol concentration cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200mg/l.

Special Note

For concentration of contaminants concerning state, county, and City of San Antonio contact the ENRD, DPW.

INSTRUCTIONS

1. EPA HW CAT (EPA Hazardous waste category) - I.E.. D001, D002.
2. CHEM NAME AND NSN (Chemical name and national stock number) From material safety data sheet.
3. BEGINNING INVENTORY (Beginning inventory) - Enter the amount of waste, by category, on hand at the beginning of the reporting period. This amount must be the same as shown in column 12 (Final Inventory), at the end of the last reporting period.
4. AMT GENR (Amount generated) - Enter the amount of waste generated for the current reporting period.
5. TOTAL GENR (total generated) - Cumulative total for the year for a given waste.
6. CONT SIZE (Container size) - I.E., 55 gal drum, 5 gal can etc.
7. Spill Prevention, Control, and Countermeasures (SPCC)/Installation Spill Contingency Plan (ISCP) - are wastes stored IAW the SPCC and the ISCP to prevent spills/leaks from contaminating the surroundings (Enter Yes/No)?
8. SPILLS/LEAKS - Enter the amount of waste that spilled/leaked.
9. AMT DISP CONTR (Amount Dispose Contract) - Enter the amount of waste disposal of by the contractor, when applicable.
10. AMT DISP DRMO (Amount Dispose Defense Reutilization and Marketing Office) - Enter the amount disposed of by DRMO, when applicable.
11. FINAL INVT (Final Inventory) - Enter the amount remaining on hand at the end of the reporting period, i.e., (Column 3 + Column 4) - (Column 9 + Column 10) = Column 11.
- 12 REMARKS

Note: If no values (amounts) produced, write 0 or none Do not leave any columns blank (except Column #12.

INSTRUCTIONS

- 1
- 2 Stock Number (For non-standard products, add a brief description of the material 8110 00 PAINT)
- 3 Weight in pounds, gallons, etc. (Contents Only)
- 4 Quantity (five digits e.g., lbs 34=lbs 00034)
- 5 DODAAC (W81JXP)
- 6.
- 7 H - Condemned (Unserviceable)
A - Serviceable
8. Fort Sam Houston, Tx
210-221-4930
EPA ID #TX3214020429
9. DRMO San Antonio, Tx SY 2547
Bldg 3000, E. Kelly
210-925-4027 TX
- 10 Mark: HW = Hazardous Waste, HM = Outdated Hazardous Material, NH = Non-hazardous
11. EPA Waste Identification (40 CFR 261.20 through 40 CFR 261.33). For further assistance contact the AMEDDC&S HM&WM
- 12 Bldg 4226
13. Proper shipping name (For all hazardous waste turn-ins the word "Waste" followed by the DOT proper shipping name 40 CFR 172.101 Hazardous Material Table)
14. W45MW2
15. Combination of chemicals, indicate the constituents and percentages of each chemical (e.g. 50% Xylene, 45% Benzene, 5% Water)
16. MSDS Attached (Require Current MSDS)
17. Type/Print point of contact to include phone number and office symbol

Indicate type of container (Drum = DR, Quart = QT)

Total weight in pounds, gallons etc

Number of containers

21 Type/Print the statement legibly and sign

This is to certify that the above named material are properly classified, packaged, labeled and are in proper condition for transportation according to the applicable regulations of DOT and EPA.

APPENDIX H

This label is not currently available through publication, but must be procured locally by contacting:

1. The Environmental Natural Resource Division, DPW 14930/14842.
- 2 The AMEDDC&S Hazardous Material and Waste Manager, 19885

HAZARDOUS WASTE			
FEDERAL LAW PROHIBITS IMPROPER DISPOSAL			
PROPER D.O.T. SHIPPING NAME	1	UN or NA#	2
IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY			
GENERATOR INFORMATION:			
NAME	3		
ADDRESS	4		
CITY	5	STATE	6 ZIP 7
E.P.A. ID NO.	8	E.P.A. WASTE NO.	9
MANIFEST DOCUMENT NO.	10		
ACCUMULATION START DATE	11		
CONTAINS HAZARDOUS OR TOXIC WASTES			
HANDLE WITH CARE!			

INSTRUCTIONS

1. Proper Shipping Name of HW (Waste, Acetone/Waste Liquid n.o.s.) 40 CFR 172.101 Hazardous Material Table. For further instructions contact the HM&WM.
- 2 United Nation/North American Number 40 CFR 172.101 Hazardous Material Table.
- 3 Fort Sam Houston
- 4 Office Symbol & Department
5. San Antonio
6. Texas
- 7 78234
- 8 Blank (ENRD, DPW)
- 9 EPA Waste I.D. (40 CFR 261.20 through 40 CFR 261.33). For further instructions contact the AMEDDC&S HM&WM.
- 10 Blank (ENRD, DPW)
- 11 Date container when filled (allow six inches or greater for air expansion in container)

APPENDIX I

DOD Hazardous Materials Information System
 DoD 6050.5-LR
 AS OF AUGUST 1992
 For U.S. Government Use Only

FSC: 6810
 NIIN: 001817557
 Manufacturer's CAGE: 1L164
 Part No. Indicator: A
 Part Number/Trade Name: SODIUM HYDROXIDE SOLUTION, 50% ELECTRONIC GR

=====
 General Information
 =====

Item Name: SODIUM HYDROXIDE SOLUTION
 Manufacturer's Name: ALLIED CHEMICAL CORP.
 Manufacturer's Street: COLUMBIA RD & PARK AVE
 Manufacturer's P. O. Box: 1087R
 Manufacturer's City: MORRISTOWN
 Manufacturer's State: NJ
 Manufacturer's Country: US
 Manufacturer's Zip Code: 07960
 Manufacturer's Emerg Ph #:
 Manufacturer's Info Ph #:
 Distributor/Vendor # 1:
 Distributor/Vendor # 1 Cage:
 Distributor/Vendor # 2:
 Distributor/Vendor # 2 Cage:
 Distributor/Vendor # 3:
 Distributor/Vendor # 3 Cage:
 Distributor/Vendor # 4:
 Distributor/Vendor # 4 Cage:
 Safety Data Action Code:
 Safety Focal Point: K
 Record No. For Safety Entry: 001
 Tot Safety Entries This Stk#: 004
 Status:
 Date MSDS Prepared: PRE-HCS
 Safety Data Review Date: 27SEP82
 Supply Item Manager: CX
 MSDS Preparer's Name:
 Preparer's Company:
 Preparer's St Or P. O. Box:
 Preparer's City:
 Preparer's State:
 Preparer's Zip Code:
 Other MSDS Number:
 MSDS Serial Number: BDGKQ
 Specification Number:
 Spec Type, Grade, Class:
 Hazard Characteristic Code: C2
 Unit Of Issue: BT
 Unit Of Issue Container Qty:
 Type Of Container: 1 PT
 Net Unit Weight:
 NRC/State License Number:
 Net Explosive Weight:
 Net Propellant Weight-Ammo:
 Coast Guard Ammunition Code:

=====
Ingredients/Identity Information
=====

Proprietary: NO
Ingredient: SODIUM HYDROXIDE (SARA III)
Ingredient Sequence Number: 01
Percent: 50
Ingredient Action Code:
Ingredient Focal Point: K
NIOSH (RTECS) Number: WB4900000
CAS Number: 1310-73-2
OSHA PEL: C 2 MG/M3
ACGIH TLV: C 2 MG/M3; 9192
Other Recommended Limit:

=====
Proprietary: NO
Ingredient: WATER
Ingredient Sequence Number: 02
Percent: 50
Ingredient Action Code:
Ingredient Focal Point: K
NIOSH (RTECS) Number: ZC0110000
CAS Number:
OSHA PEL:
ACGIH TLV: N/A
Other Recommended Limit:

=====
Physical/Chemical Characteristics
=====

Appearance And Odor: COLORLESS,VISCOUS LIQUID,ODORLESS.
Boiling Point: 298.4F/148C
Melting Point:
Vapor Pressure (MM Hg/70 F): N/A
Vapor Density (Air=1): N/A
Specific Gravity: 1.525
Decomposition Temperature:
Evaporation Rate And Ref: N/A
Solubility In Water: COMPLETE
Percent Volatiles By Volume: N/A
Viscosity:
pH:
Radioactivity:
Form (Radioactive Matl):
Magnetism (Milligauss):
Corrosion Rate (IPY):
Autoignition Temperature:

=====
Fire and Explosion Hazard Data
=====

Flash Point: N/A
Flash Point Method:
Lower Explosive Limit: N/A
Upper Explosive Limit: N/A
Extinguishing Media: FLOW W WATER,TAKE CARE NOT TO SPLASH THIS MATERIAL
Special Fire Fighting Proc: IF MISTY,WEAR SELF-CNTND BRTHG APPARATUS, FULL
PROTECTV CLOTH
Unusual Fire And Expl Hazrds: WILL REACT WITH METALS TO GENERATE H*2 WHICH
IS EXPLOSIVE AND FLAMMABLE.

=====
 Reactivity Data
 =====

Stability: YES
 Cond To Avoid (Stability):
 Materials To Avoid: AVOID ACIDS, METALS, OXIDIZERS, ORGANICS, WATER REACTV
 MATL
 Hazardous Decomp Products: AT BP(148C) HAZARDOUS MIST, AT DRUNESS CAUSTIC
 RESIDUE LEFT.
 Hazardous Poly Occur: NO
 Conditions To Avoid (Poly):

=====
 Health Hazard Data
 =====

LD50-LC50 Mixture:
 Route Of Entry - Inhalation:
 Route Of Entry - Skin:
 Route Of Entry - Ingestion:
 Health Haz Acute And Chronic:
 Carcinogenicity - NTP:
 Carcinogenicity - IARC:
 Carcinogenicity - OSHA:
 Explanation Carcinogenicity:
 Signs/Symptoms Of Overexp: SEVERE IRRITANT TO EYES, SKIN, BY INHALE,
 INGESTION. MATL IS EXTREMELY CORROSIVE, SOME EFFECTS DELAYED.
 Med Cond Aggravated By Exp:
 Emergency/First Aid Proc: EYES: IMMED. FLUSH W H*2O 15 MIN. SKIN: IMMED.
 FLUSH UNDER SAFETY SHOWER. REMOVE CONTAMINATED CLOTHES. IMHALED: REMOVE TO
 FRESH AIR, INGEST: DO NOT INDUCE VOMITING. GIVE LG AMTS H*2O OR MILK. FOLLOW
 WITH DILUTE VINEGAR OR FRUIT JUICE. GET MEDICAL ATTN.

=====
 Precautions for Safe Handling and Use
 =====

Steps If Matl Released/Spill: PICK UP SPILL W ALKALI RESISTANT EQUIP FOR
 DISPOSAL OR FLUSH TO HOLDING AREA W H*2O. PERSONNEL MUST WEAR FULL PROTECTV
 CLOTHING TO PREVENT CONTACT. ABUNDANT RUNNING WATER SHOULD BE AVAILABLE FOR
 EMERGENCY USE.
 Neutralizing Agent:
 Waste Disposal Method: DISPOSAL SUBJECT TO FEDERAL, STATE & LOCAL
 REGULATIONS. USERS SHOULD REVIEW OPERATIONS FOR REGULATORY COMPLIANCE.
 CONSULT WITH APPROPRIATE AGENCY BEFORE DISPOSAL.
 Precautions-Handling/Storing: PROTECT AGAINST PHYSICAL DAMAGE. STORE IN DRY
 PLACE; PROTECT AGAINST MOISTURE & H*2O. SEPARATE FROM ACIDS, METALS, EXPLOSVS,
 PEROXIDES, COMBUSTIBLES.
 Other Precautions: IMPORTANT TRAIN WORKERS PROPERLY. UNUSUAL PRECAUTIONS
 TO PREVENT SPILLS. LEAKAGE, EJECTIONS & MIST FORMATION. AVOID SKIN CONTACT
 WHEN HANDLING, WEAR GOGGLES OR FACE SHIELD.

=====
 Control Measures
 =====

Respiratory Protection: IF MISTY: SELF-CNTND BRTHG APP W FULL FACE PIECE;
 SUPPLD AIR RESPIR.
 Ventilation: ALL HANDLING SHOULD BE DONE IN AN EXHAUSTED HOOD
 Protective Gloves: RUBBER/NEOPRENE
 Eye Protection: SAFETY GLASSES, FACE SHIELD
 Other Protective Equipment: FACE SHIELD, EYE WASH, SAFETY SHOWER, FULL
 PROTECTIVE CLOTHING.
 Work Hygienic Practices:
 Suppl. Safety & Health Data: SYNONYM: CAUSTIC LYE SOLN, SODA LYE, SODIUM
 HYDROXIDE LIQUID.

APPENDIX J
LABELING AND MARKING OF CONTAINER



APPENDIX K

HM 181 HAZARDOUS MATERIALS LABELING CHART

<p>CLASS 1 Explosive 2.3</p> <p>Include appropriate division number and compatibility group</p>	<p>CLASS 1 Explosive 1.4</p> <p>Incompatibility</p>	<p>CLASS 1 Explosive 1.5</p> <p>Include appropriate compatibility group</p>	<p>CLASS 1 Explosive 1.6</p> <p>Include appropriate compatibility group</p>	<p>CLASS 2 Division 2.1</p> <p>Flammable gas</p>	<p>CLASS 2 Division 2.2</p> <p>Non-flammable gas</p>	<p>CLASS 2 Division 2.2</p> <p>Oxygen</p>
<p>CLASS 2 c 2.3</p> <p>Poison gas</p>	<p>CLASS 3</p> <p>Flammable liquid</p>	<p>CLASS 4 Division 4.1</p> <p>Flammable solid</p>	<p>CLASS 4 Division 4.2</p> <p>Spontaneously combustible</p>	<p>CLASS 4 Division 4.3</p> <p>Dangerous when wet</p>	<p>CLASS 5 Division 5.1</p> <p>Oxidizer</p>	<p>CLASS 5 Division 5.2</p> <p>Organic peroxide</p>
<p>CLASS 6 Division 6.1</p> <p>Poison - Packing Groups I and II</p>	<p>CLASS 6 Division 6.1</p> <p>Poison - Packing Group III</p>	<p>CLASS 6 Division 6.2</p> <p>Infectious substance</p>	<p>The Etiologic Agent label may be required (42 CFR 172.3)</p>	<p>CLASS 7</p> <p>Radioactive I</p>	<p>CLASS 7</p> <p>Radioactive II</p>	<p>CLASS 7</p> <p>Radioactive III</p>
<p>CLASS 8</p> <p>Corrosive</p>	<p>CLASS 9</p> <p>Miscellaneous</p>	<p>SUBSIDIARY RISK LABELS</p> <p>Explosive Flammable Gas Flammable Liquid Flammable Solid Corrosive Oxidizer Poison Spontaneously Combustible Dangerous When Wet</p> <p>The Hazard Class or Division Number may not be displayed on a subsidiary label</p>		<p>EMPTY</p> <p>Empty</p>	<p>FOR AIRCRAFT</p> <p>DANGER MAGNETIZED MATERIAL</p>	

D.O.T. GENERAL GUIDLINES ON USE OF WARNING LABELS

Shipper must furnish and attach appropriate label(s) to each package of hazardous material offered for shipment unless exempted from labeling requirements.

If the material in a package has more than one hazard classification, the package must be labeled for each hazard (Ref. Title 49, CFR, Sec. 172.402).

When two or more hazardous materials of different classes are packed within the same packaging or outer enclosure, the outside of the package must be labeled for each material involved. (Ref. Title 49, CFR, Sec. 172.404(a)).

Radioactive materials requiring labeling, must be labeled on two opposite sides of the package. (Ref. Title 49, CFR, Sec. 172.403(f))

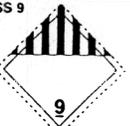
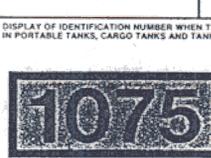
Labels must not be applied to a package containing only material which is not subject to Parts 170 - 189 of this subchapter or which is exempted therefrom. This does not prohibit the use of labels in conformance with U.N. recommendations ("Transport of Dangerous Goods"), or with the IMO requirements ("International Maritime Dangerous Goods Code") ICAO Technical Instructions, TDG Regulations (Ref. Title 49, CFR, Sec. 172.401).

HAZARDOUS MATERIALS PACKAGE MARKINGS

<p>SAMPLE PACKAGING MARKING</p> <p>Proper Shipping Name ACETONE</p> <p>UN I.D. Number UN 1090</p> <p>HAZARD WARNING LABEL</p>	<p>CONSUMER COMMODITY</p> <p>ORM-D</p> <hr/> <p>CONSUMER COMMODITY</p> <p>ORM-D-AIR</p>			<p>INHALATION HAZARD</p>	
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APPENDIX L

HM 181 HAZARDOUS MATERIALS PLACARDING CHART

<p>CLASS 1</p>  <p>EXPLOSIVES 1.1, 1.2, & 1.3 The Division number 1.1, 1.2 or 1.3 and (optional) gross weight or net weight. Placard any quantity of Division 1.1, 1.2 or 1.3 explosives.</p>	<p>CLASS 1</p>  <p>EXPLOSIVES 1.4 The compatibility group(s) in black ink. Placard 454 kg (1001 lbs) or more of 1.4 Explosives.</p>	<p>CLASS 1</p>  <p>EXPLOSIVES 1.5 The compatibility group(s) in black ink. Placard 454 kg (1001 lbs) or more of 1.5 Blasting Agents.</p>	<p>CLASS 1</p>  <p>EXPLOSIVES 1.6 The compatibility group(s) in black ink. Placard 454 kg (1001 lbs) or more of 1.6 Explosives.</p>	<p>CLASS 2</p>  <p>OXYGEN Placard 454 kg (1001 lbs) or more aggregate gross weight of either carbon dioxide, oxygen, refrigerated liquid. See 172.506(b)(7).</p>
<p>CLASS 2 Division 2.1</p>  <p>FLAMMABLE GAS Placard 454 kg (1001 lbs) or more of flammable gas. See DANGEROUS.</p>	<p>CLASS 2 Division 2.2</p>  <p>NON-FLAMMABLE GAS Placard 454 kg (1001 lbs) or more aggregate gross weight of non-flammable gas. See DANGEROUS.</p>	<p>CLASS 2 Division 2.3</p>  <p>POISON GAS Placard any quantity of Division 2.3 material.</p>	<p>CLASS 3</p>  <p>FLAMMABLE Placard 454 kg (1001 lbs) or more gross weight of flammable liquid. See DANGEROUS.</p>	<p>CLASS 3</p>  <p>GASOLINE May be used in the place of FLAMMABLE on a placard displayed on a cargo tank or a portable tank being used to transport gasoline by highway. See 172.542(c).</p>
<p>CLASS 3</p>  <p>COMBUSTIBLE Placard a combustible liquid when transported in bulk. A FLAMMABLE placard may be used in place of a Combustible placard on cargo tanks or a compartmented car which contains both flammable and combustible liquids. See 172.504(b)(2).</p>	<p>CLASS 3</p>  <p>FUEL OIL May be used in place of COMBUSTIBLE on a placard displayed on a cargo tank or portable tank being used to transport by highway fuel oil not classified as a flammable liquid. See 172.544(c).</p>	<p>CLASS 4 Division 4.1</p>  <p>FLAMMABLE SOLID Placard 454 kg (1001 lbs) or more gross weight of flammable solid. See DANGEROUS.</p>	<p>CLASS 4 Division 4.2</p>  <p>SPONTANEOUSLY COMBUSTIBLE Placard 454 kg (1001 lbs) or more gross weight of spontaneously combustible material. See DANGEROUS.</p>	<p>CLASS 4 Division 4.3</p>  <p>DANGEROUS WHEN WET MATERIAL Placard any quantity of Division 4.3 material.</p>
<p>CLASS 5 Division 5.1</p>  <p>OXIDIZER Placard 454 kg (1001 lbs) or more gross weight of oxidizing material. See DANGEROUS.</p>	<p>CLASS 5 Division 5.2</p>  <p>ORGANIC PEROXIDE Placard 454 kg (1001 lbs) or more gross weight of organic peroxide. See DANGEROUS.</p>	<p>CLASS 6 Division 6.1</p>  <p>POISON Placard 454 kg (1001 lbs) or more gross weight of Placing Category 1 & 2. See DANGEROUS. Placard any quantity of Placing Hazard 6.1, PG2.</p>	<p>CLASS 6 Division 6.2</p>  <p>HARMFUL Placard 454 kg (1001 lbs) or more gross weight of Placing Category 6. See DANGEROUS.</p>	<p>CLASS 7</p>  <p>RADIOACTIVE Placard any quantity of packages bearing the RADIOACTIVE YELLOW III label. Certain low specific activity radioactive materials of "exclusive use" will not bear the label, but the RADIOACTIVE placard is required.</p>
<p>CLASS 8</p>  <p>CORROSIVE Placard 454 kg (1001 lbs) or more gross weight of corrosive material. See DANGEROUS.</p>	<p>CLASS 9</p>  <p>MISCELLANEOUS Placard 454 kg (1001 lbs) or more gross weight of a material which presents a hazard during transport, but which is not included in any other hazard class. See DANGEROUS.</p>	<p>CLASS 9</p>  <p>DANGEROUS Placard 454 kg (1001 lbs) gross weight of two or more categories of hazardous materials listed in Table 2. A freight container, unit load device, transport vehicle or rail car which contains non-bulk packages with two or more categories of hazardous materials that require different placards specified in Table 2 may be placarded with DANGEROUS placards instead of the separate placarding specified for each of the materials in Table 2. However, when 2,268 kg (5000 lbs) or more of one category of material is loaded therein at one loading facility, the placard specified in Table 2 for that category must be applied. Division 1.4 (explosives) Division 1.5 (blasting agents) Division 1.6 (explosives) Division 2.1 (flammable gas) Division 2.2 (non-flammable gas) Class 3 (flammable liquid) Combustible liquid Division 4.1 (flammable solid) Division 4.2 (spontaneously combustible) Division 5.1 (oxidizer) Division 5.2 (organic peroxide) Class 6 (poison) Class 8 (corrosive) Class 9 (miscellaneous)</p>	<p>SUBSIDIARY RISK PLACARD</p>  <p>POISON GAS Class numbers do not appear on risk placards.</p>	
<p>DANGER MIXTURES FLAMMABLE</p>  <p>MIXTURES Placard motor vehicle, freight container or rail car on or near each door when fumigated with Division 6.1 (Poison) or Division 2.3 (Poison gas).</p>	<p>RAIL</p>  <p>RAIL Placard empty tank car's for residue of material last contained.</p>	<p>The square background is required for the following placards when on rail cars: EXPLOSIVES 1.1 or 1.2; POISON GAS or POISON GAS-RESIDUE (Division 2.3, Hazard Zone A); POISON or POISON-RESIDUE (Division 6.1, PG 1, Hazard Zone A). The square background is required for placards on motor vehicles transporting highway route controlled quantities of radioactive materials (Class 7).</p>	<p>DISPLAY OF IDENTIFICATION NUMBER WHEN TRANSPORTING HAZARDOUS MATERIALS IN PORTABLE TANKS, CARGO TANKS AND TANK CARS.</p>  <p>1075 ORANGE PANEL</p>  <p>1090 PLACARD</p>	

APPENDIX M

HAZARDOUS WASTE WEEKLY INSPECTION

Manager Name: _____ Phone: _____
(grade/rank)

Activity: _____ Location: _____

1. ADMINISTRATION AND TRAINING: Yes No N/A

- a Are current records and publications on file?
- b Are personnel properly trained and informed of latest changes in HW program?
- c Is someone appointed as the primary Hazardous Material and Waste Handler? Also, has a alternate Hazardous Material and Waste Handler been appointed?
- d Are personnel exercising caution and using correct procedures in handling of waste products?
- e Are training records maintained in the section?
- f Is the FSH 700 completed and forwarded to the HM&WM?

2. HAZARDOUS WASTE STORAGE AND DISPOSAL: Yes No N/A

- a Are all full containers of HW moved to ENRD storage area within three days of being full?
- b Are all containers kept closed except when waste is being added or removed?
- c Are the containers labeled, either HAZARDOUS WASTE or specific substance?
- d Are the containers compatible with the waste stored?

Yes No N/A

- e Are all HW containers kept in designated storage areas?
- f. Are ignitable or reactive wastes stored minimum of 50 feet from any structure?
- g Are HW containers in good condition (not leaking, bulging, rusting, damaged, or dented)?
- h. Are incompatible wastes segregated?
- i. How much waste is stored at the satellite accumulation points or storage site: does it exceed 55 gallons?, or 1 quart for any acutely HW?
- j. Is the HM&WM contacted when waste is ready for disposal?
- k. Is the container labeled with the appropriate DOT label?
- l. Is the HW container storage area inspected weekly?
- m Is spill control equipment on-site at the storage area?
- n Are HW containers well managed (not stacked more than 2 high; pallets between stacked containers; containers of flammable wastes electrically grounded; at least 3 feet of aisle space between containers)?
- o Is there a fire extinguisher on-site at the container storage area?
- n. Is there decontamination equipment available to clean items contaminated by a spill?
- p. Is personal protective equipment provided and worn where there is any danger or exposure of hazardous waste?

Corrective action taken for findings:

(MCCS-GSF)

FOR THE COMMANDER:

OFFICIAL:

CHARLES E. DYER, II
Colonel, MS
Secretary of the General Staff



PAUL D. ANDERSON
CPT, MS
Adjutant General

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